

WE CLAIM:

1. An electronic voting system for use in elections, comprising:
a controller configured with an interactive menu system permitting a
poll worker to preside over an election;

5 electronic ballot information stored on said system;

at least one voting station coupled with said controller to form a
network,

said voting station having an electronically configurable display for
presenting indicia representative of said electronic ballot information to
10 voters;

a member selected from the group consisting of a mobile memory
and a telecommunications connection for transferring said electronic ballot
information between an election administration station and said controller;
and

15 program logic for disseminating selected portions of the electronic
ballot information between the controller and the voting station on a voter-
specific basis to facilitate cooperable interaction between the voting
station and the electronically configurable display during the election.

2. The electronic voting system as set forth in claim 1, wherein
20 said electronically configurable display is a liquid crystal display.

3. The electronic voting system as set forth in claim 1, wherein
said voting station is programmed with voter logic for navigating through
said indicia to present a voter with a ballot focus comprising a single

selected ballot element.

4. The electronic voting system as set forth in claim 3, wherein the ballot focus changes format for visual presentation to the voter when selected.

5 5. The electronic voting system as set forth in claim 4, wherein said ballot focus is selected from the group consisting of darkened ballot elements, ballot elements having a changed font, and ballot elements having a changed color.

10 6. The electronic voting system as set forth in claim 1, wherein said program logic includes machine instructions permitting interactive configuration of said voting station prior to opening of polls for election purposes, said interactive configuration including manipulation of user input devices by a poll worker in said voting stations as prompted by said controller.

15 7. The electronic voting system as set forth in claim 1, wherein said electronic ballot information has a data structure formed as a hierarchy of pages.

20 8. The electronic voting system as set forth in claim 1, wherein said electronic ballot information comprises a plurality of different ballot styles and said program logic includes logic for assigning a selected ballot style to a particular voter according to voter eligibility to vote in a predetermined selection of elections.

9. The electronic voting system as set forth in claim 1, wherein

said controller includes a voter access code generator for voter entry at said voting station, said voter access code being unique on said system during a single election.

5 10. The electronic voting system as set forth in claim 9, wherein said voter access code generator generates a voter access code that is substantially dissimilar to other voter access codes currently assigned for use on said system to prevent voters from mistakenly entering an erroneous voter access code.

10 11. The electronic voting system as set forth in claim 1, wherein said voting station is selectively configured with a disabled access unit.

 12. The electronic voting system as set forth in claim 11, wherein said disabled access unit includes an audio system for replicating said electronic ballot information and adaptors configured for coupling with special controls for physically challenged persons.

15 13. The electronic voting system as set forth in claim 1, wherein said voting station is configured to operate on an automated RS-485 network termination circuit permitting separation of individual voting stations from LCD DREs without interruption of network operations.

20 14. The electronic voting system as set forth in claim 12, wherein said automated RS-485 network termination circuit is modified to permit termination at each voting station without having a conventional network termination circuit installed in each voting station.

 15. The electronic voting system as set forth in claim 1, wherein

said controller is configured to permit suspended early voting sessions over a period of days prior to an actual election day.

16. The electronic voting system as set forth in claim 1 including electronic means for verifying that indicia presented on said electronically configurable display matches votes being cast and stored as a voter concludes interaction with said voting station.

17. The electronic voting system as set forth in claim 1 including program logic for storing a complete ballot image of votes that are cast by each voter.

18. The electronic voting system as set forth in claim 17, wherein said system includes a plurality of stack memory registers and the program logic is configured for selecting the stack registers for storage of ballot image data through use of a random number generator.

19. The electronic voting system as set forth in claim 17, wherein said stack memory registers have a common point of origin.

20. The electronic voting system as set forth in claim 1 including program logic for providing a complete audit trail of all poll worker entries at said controller during an election.

21. A method of voting on an electronic network having a controller connected to a plurality of voting stations, the method comprising the steps of:

activating the voting stations;

testing the voting stations for proper operation;

opening the polls;
generating access codes assigned to specific voters;
activating a voting station for a particular voter according to the
access code assigned to that voter;
5 receiving a cast ballot through use of the voting station; and
maintaining an audit log of all voting activities on the network while
protecting voter anonymity.

22. The method according to claim 21, wherein the step of
activating a voting station is performed as a consequence of having the
10 voter enter an access code at the voting station.

23. The method according to claim 21, wherein the step of
protecting voter anonymity includes use of a plurality of stack memory
registers and a step of selecting the stack memory registers for storage of
ballot image data through use of a random number generator.

24. The method according to claim 21, wherein the step of
15 maintaining an audit log includes recording any event that changes the
state of the system with a time and date stamp.

25. The method according to claim 21, wherein the step of
maintaining an audit log includes storing values representative of a time
20 and date that each vote is cast. The detail that is contained in the
resulting audit log is very specific and includes the time and date that each
vote was cast.

26. The method according to claim 21, wherein the step of

maintaining an audit log includes storing data representative of the audit log in redundant nonvolatile memory.

27. The method according to claim 26, wherein the step of storing data in redundant nonvolatile memory includes storing data in the network controller and the voting stations where each voting station maintains a record of activities that have transpired at that voting station.

28. A vote recording device for use as a network component in casting ballots in an election, comprising

an electronically configurable display;

program logic for receiving electronic ballot information from the network and for processing the electronic ballot information to configure the electronically configurable display to display the electronic ballot information as text;

a user input area including a rotary input device for voter interaction as ballots are cast; and

means for transmitting cast ballot information to the network.

29. The vote recording device as set forth in claim 28, wherein said electronically configurable display has a flat viewing surface.

30. The vote recording device as set forth in claim 28, wherein the rotary input device cooperates with the display to present a voter with a ballot focus comprising a single selected ballot element.

31. The vote recording device as set forth in claim 30, wherein the ballot focus changes format for visual presentation to the voter when

selected.

32. The vote recording device as set forth in claim 31, wherein said ballot focus is selected from the group consisting of darkened ballot elements, ballot elements having a changed font, and ballot elements having a changed color.

33. The vote recording device as set forth in claim 28, wherein said electronic ballot information has a data structure formed as a hierarchy of pages, and navigation through the pages is controlled locally at the vote recording device.

34. The vote recording device as set forth in claim 28, wherein said voting station is selectively configured with a disabled access unit.

35. The vote recording device as set forth in claim 34, wherein said disabled access unit includes program logic for replicating said electronic ballot information in non-textual fashion and adaptors configured for coupling with special controls for physically challenged persons.

36. The vote recording device as set forth in claim 28, wherein said voting station is configured to operate on an automated RS-485 network termination circuit permitting separation of individual voting stations from LCD DREs without interruption of network operations.

37. The vote recording device as set forth in claim 36, wherein said automated RS-485 network termination circuit is modified to permit termination at the vote-recording device.

38. The vote recording device as set forth in claim 28 including a

charge coupled device operable for verifying that indicia presented on said electronically configurable display matches votes being cast and stored as a voter concludes interaction with said voting station.

5 39. The vote-recording device as set forth in claim 28 including a selectively removable protective shield covering the electronically configurable screen.